

Chapter 8. State Indicators

8-4 Fourth Grade Science Proficiency

Description

This indicator represents the proportion of a state's fourth grade students in public schools that met or exceeded the proficiency standard in science. The National Assessment Governing Board sets performance standards that provide a context for interpreting National Assessment of Educational Progress (NAEP) results. The standards define "proficiency," as well as "advanced" and "basic" accomplishment. For the fourth grade, the basic level (scores 131–166) denotes partial mastery of knowledge and skills that are prerequisite for proficient work. The proficient level (167–223) represents solid academic performance and demonstrates competency over challenging subject-matter knowledge. The advanced level (224–300) signifies superior performance.

The National Center for Education Statistics has determined that achievement levels were to be used on a trial basis and should be interpreted with caution. However, both the Commissioner of Education Statistics and the National Assessment Governing Board state these performance standards are useful for understanding trends in student achievement.

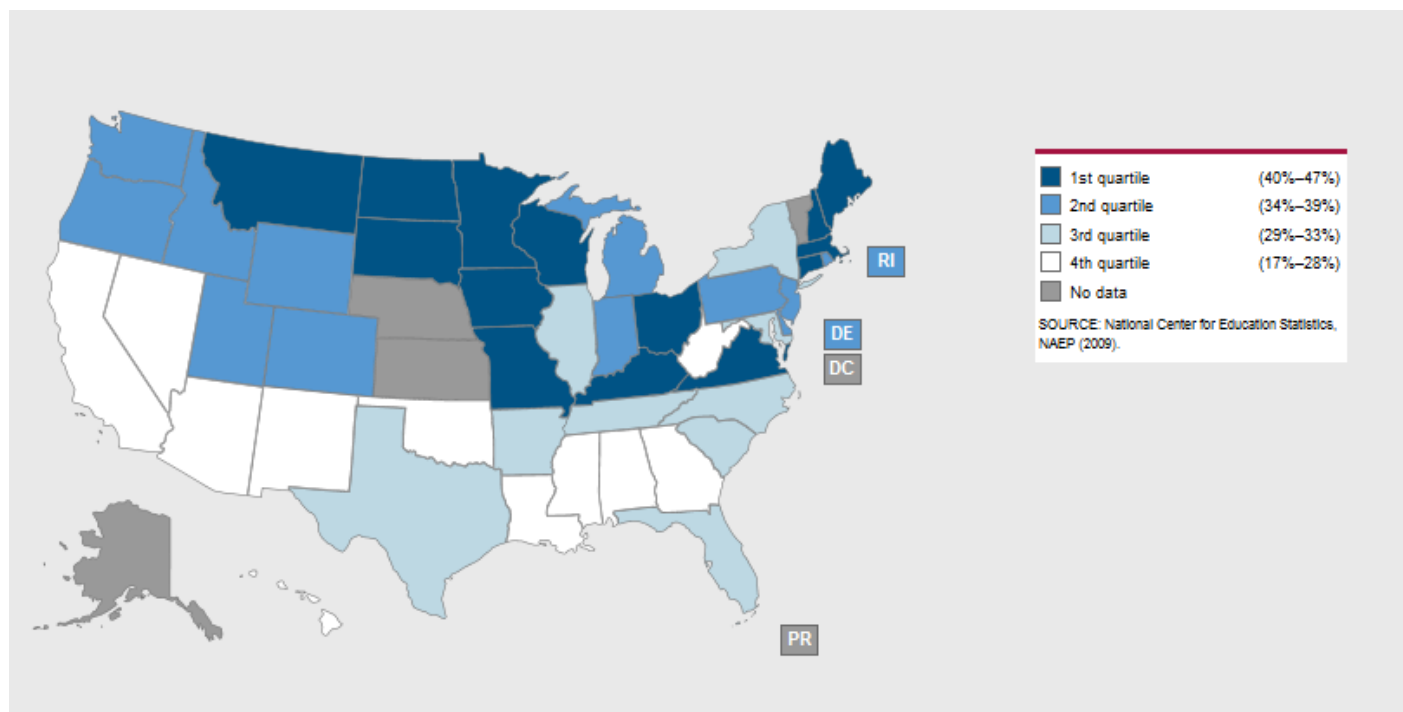
Approximately 151,500 fourth grade students in 8,780 schools participated in the 2009 NAEP science assessment. Students with disabilities or limited English-language proficiency are allowed to use certain accommodations (e.g., extra testing time or individual rather than group administration). All data presented here represent scores from tests taken with accommodations offered.

Findings

- In 2009, 32% of fourth grade students nationwide performed at or above the proficient level in science.
- Proficiency varied significantly across states, ranging from 17% to 47%.
- Nationally, the percentage of fourth grade white public school students demonstrating proficient performance in science was 46% in 2009 compared to 10% for black students, a gap of 36 percentage points, and 13% for Hispanic students, a gap of 33 percentage points, based upon racial classifications provided by the schools.
- In 2009, 34% of male students demonstrated proficient performance in science compared to 31% of female students.

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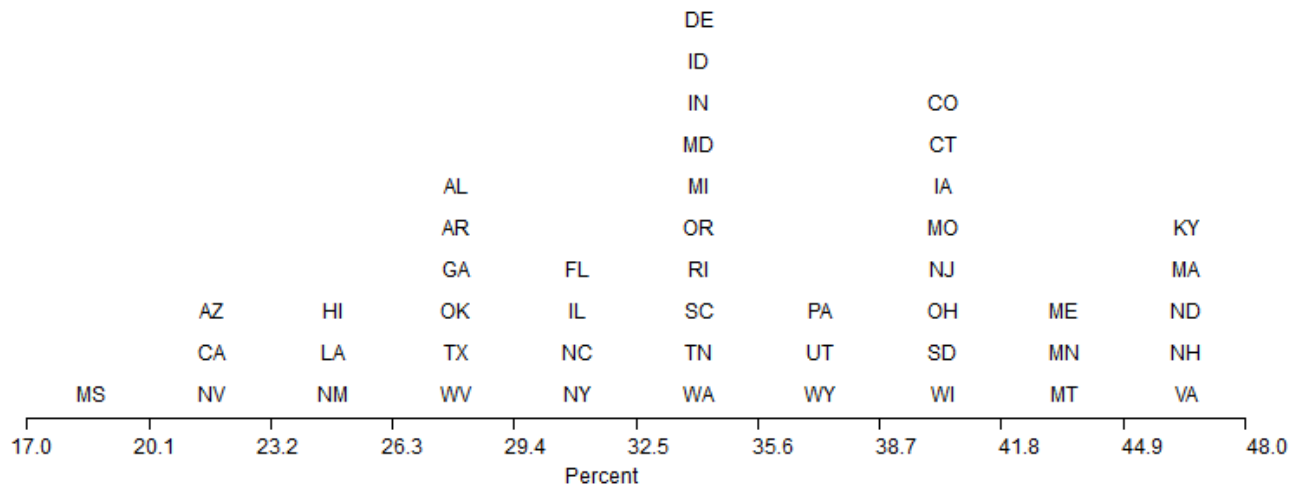
Year: 2009



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Distribution of states across indicator values



Histograms do not display states with extreme values. Please consult the data tables for exact indicator values for each state.

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Table 8-4 Fourth Grade Science Proficiency

State	4th grade science proficiency, all students (Percent)	
	2009	
United States		32
Alabama		27
Alaska		NA
Arizona		22
Arkansas		29
California		22
Colorado		39
Connecticut		40
Delaware		34
District of Columbia		NA
Florida		32
Georgia		27
Hawaii		25
Idaho		35
Illinois		32
Indiana		35
Iowa		41
Kansas		NA
Kentucky		45
Louisiana		25
Maine		42
Maryland		33
Massachusetts		45
Michigan		34
Minnesota		43

State	4th grade science proficiency, all students (Percent)	
	2009	
Mississippi		17
Missouri		40
Montana		43
Nebraska		NA
Nevada		23
New Hampshire		47
New Jersey		39
New Mexico		24
New York		30
North Carolina		30
North Dakota		45
Ohio		41
Oklahoma		28
Oregon		34
Pennsylvania		38
Rhode Island		34
South Carolina		33
South Dakota		40
Tennessee		33
Texas		29
Utah		38
Vermont		NA
Virginia		46
Washington		35
West Virginia		28
Wisconsin		41
Wyoming		37
Puerto Rico		NA



4th grade science proficiency, all students (Percent)	
State	2009
<div>NA = not available.</div> <div>NOTES: The National Assessment of Educational Progress (NAEP) scores are for public schools only. The national value for the United States is the reported value in the NAEP reports.</div> <div>SOURCE: National Center for Education Statistics, NAEP (2009).</div> <div><i>Science and Engineering Indicators 2016</i></div>	